TELEDATA

NetEye

NVR PROFESSIONAL

Client/Server settings
Remote Client

Information ownership

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Declaration of conformity

This software application was designed according to the quality, reliability and performance criteria adopted by Teledata.

The software application must be installed according to the instructions in this manual.

The NetEye software application is compatible with Windows7 and Windows XP operating systems.

CONTENTS

1. General information

This manual	NetEye installation and user manual.
	• Version 1.0
	• Month and year of print: January 2012
Information on software	NetEye software version: 1.1.x

Manual addressees

This manual is addressed to the following individuals:

System administrator	This person has full access to NetEye functions. Specifically, this person assigns login passwords to Operator and Playback profiles. As the surveillance system administrator, this person controls and exports recordings.
	If authorized, they can edit installation settings.
Operator	This person has full access to system functions except for recording playback and delete functions.
Playback	This person can playback recordings
Network administrator	This person designs the network, installs video cameras and optional devices, installs video camera NetEye Server and routing settings.
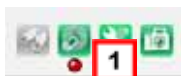
Network design and hardware installation are not illustrated in this manual since considered skills already known to the administrator.

1.1 Graphic concepts

Graphic concepts adopted in the text are illustrated below.

Page concepts	Example	Description
Italic	See *paragraph*	This indicates a chapter, section, paragraph, table or illustration heading in this manual or other publication of reference.
<text>	*<ddmmyyyy>*	This indicates a text that may have a specific value. In the example this could be "13082006".
[1]		The representation of an object on the screen (i.e.: menus, tables, etc.).

Note: important information, highlighted after the text they refer to.

Warning: operations to be carefully performed or important information.

Suggestions: practical information for good function operations.

1.2   Warranties and technical support

Warranty restrictions

Teledata is not liable for direct or indirect damages to people or property due to software settings other than those described in this manual.

Qualified personnel must install this software strictly following the instructions in this manual and according to local laws, standards and safety regulations in effect.

For further information on warranty conditions, please refer to the purchase terms and warranty instructions available at www.teledata-i.com.

Technical support

This manual was drafted with care and is intended for qualified personnel. For any questions or special technical requests, please contact our personnel.

Please write or call to contact personnel able to answer your questions and provide assistance.

Service email: laboratorio@teledata-i.com
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Service fax number: +39 022593704

1.3   Information on privacy

Regulations

There are specific regulations in some countries on personal data acquisition, storage and processing. NetEye is included in this context when it records and stores images

We suggest you refer to that indicated in the governmental sites/documents in the country where the equipment is installed to ensure that its use does not violate these criteria.

Privacy management with NetEye

NetEye has specific functions to customize the way this data can be recorded, stored and consulted to guarantee their protection in countries where required (*See* chapter).*9.2 Password settings).*

Compliance with Italian regulations	*For Italy: NetEye meets Legislative decree 675/96 "Personal and individual data processing protection" as further amended. The images in this equipment cannot be modified in any way.*
Liability	*Teledata is not liable for the incorrect use of recorded personal data.*

2. Application and scope

Introduction NetEye is a professional Client/Server NVR (Network Video Recorder) that acquires video images from local video cameras in a LAN with IP address. It also supports video servers up to four channels to connect analog video cameras.

For special architectures, the same video cameras can also ve viewed from remote using the Remote Client software.

> Network design, the choice of devices and materials (i.e.: computers, cables and switches) must be accurate to guarantee the necessary image quality for highly surveilled areas.

> This software only supports Teledata video cameras.

NetEye Server in a LAN For minimum installations, simply install NetEye Server connected to a maximum of 64 video cameras in a LAN, each distinguished by an IP address. A relay board extends the ability to control remote devices other than those controlled by the output on the single video camera.

For each NetEye Server video camera:

- immediately view and record acquired images
- playback recordings
- manage the input and output
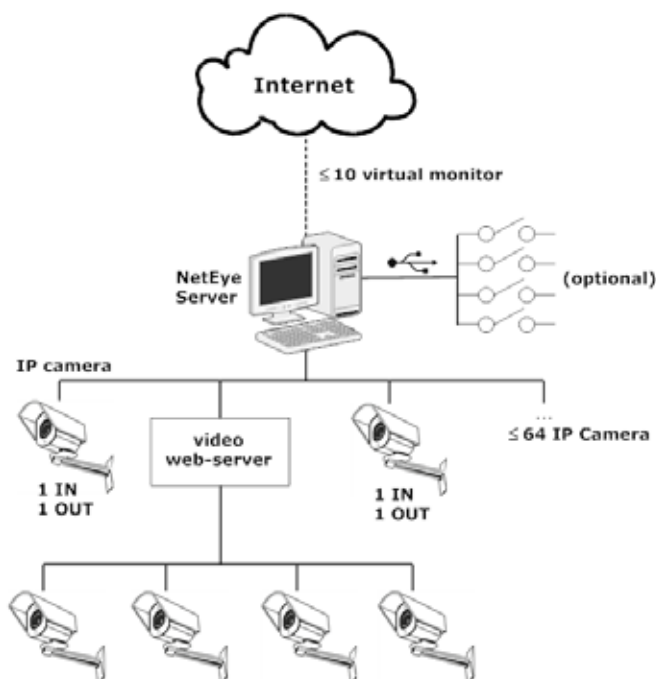
NetEye Server LAN Architecture

NetEye Client/Server in a LAN

For more complex installations, where more than 64 video cameras need to be controlled, several NetEye Servers can be installed connected in a network to a NetEye Client. NetEye Client displays the video cameras with IP addresses (regardless of whether or not they are connected to a NetEye Server) and playback the recordings from the various servers in the system.

Two NetEye Client can run on the same computer to control up to 64+64 IP cameras.
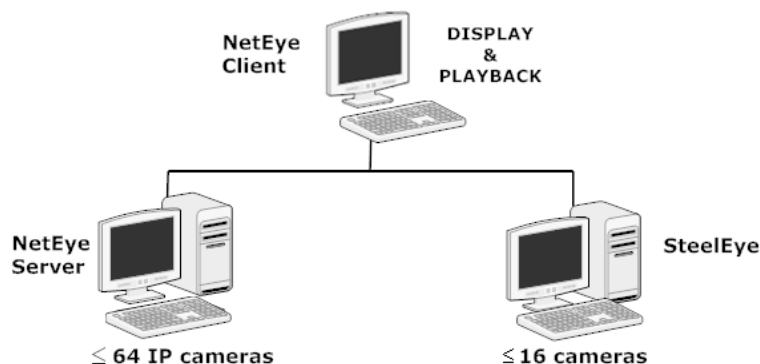
NetEye Client/Server LAN Architecture

NetEye Server with Remote Client (WAN)

For installations that require the *remote display* of images, Remote Client software can be installed in the remote workstation and up to 10 virtual monitors can be created in NetEye Server that display the images of the 64 video cameras.

Remote Client connects to NeyEye Server via a public IP address of DNS.
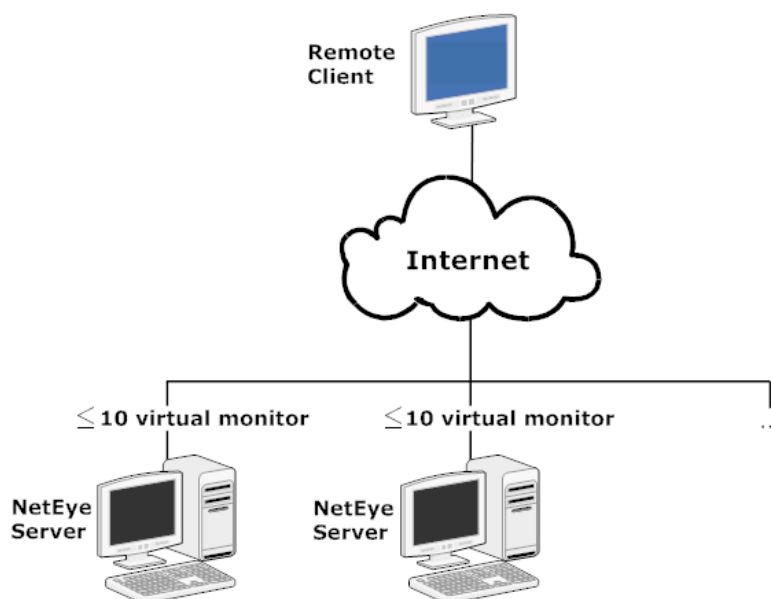
NetEye Server with Remote Client Architecture (WAN)

NetEye Client for remote SteelEye use

NetEye Client can be used to playback recordings from one or more Steel Eyes connected in a LAN or WAN and one or more IP video cameras connected in a LAN.

3. Installation requirements

Preface   Network design and the choice of computers where NetEye Server/Clients are installed must be accurate to guarantee the necessary image quality for highly surveilled areas.

Installation must be performed by qualified personnel who are fully aware of the needs of this type of system

Tips   Given that only qualified personnel can correctly install a network of IP video cameras, following are some generic tips:

- Use a network separate from the company network
- Use a PC with capacities suited to video camera needs
- Use category 6 cables for gigabyte networks
- Use switches suited to the network (if gigabyte)

Minimum requirements for systems up to 12 channels   Following are the requirements for a configuration of about 12 channels:

CPU	Level	Atom Core Duel
	Refer	Intel Atom 330 1.6G / Cache 512K / FSB 533 MHz
DRAM		1G
VGA		On Board / Intel 945GC
Network Interface Card		10/100 Ethernet
OS Support		Windows XP / Windows 7 / Windows Server 2003 / Windows Server 2008
Video Setting	VGA / 30 FPS / 1M	1~9 Ch
	VGA / 20 FPS / 512M	1~12 Ch

Minimum requirements for systems up to 64 channels   Following are the requirements for a configuration of about 64 channels:

CPU	Level	Intel Core I7
	Refer	Intel I7-920 2.66G / Cache 8M / FSB 4.8 GHz
DRAM		3G
VGA		512MB Video Ram
Network Interface Card		10/100/1000 Ethernet
OS Support		Windows XP / Windows 7 / Windows Server 2003 / Windows Server 2008

Video Setting	VGA / 30 FPS / 1M	40~64 Ch
	VGA / 20 FPS / 512M	60~64 Ch

Band requirements

Bandwidth		Data size				
Resolution	Bit Rate	1 Ch	4 Ch	16 Ch (*)	32 Ch (*)	64 Ch (*)
D1 / VGA / CIF Frame Rate (PAL 25 FPS / NTSC 30 FPS)	2 MPS	2 MB	8 MB	**32 MB**	**64 MB**	**128 MB**
	1.5 MPS	1.5 MB	6 MB	24 MB	**48 MB**	**96 MB**
	1 MPS	1 MB	4 MB	16 MB	**32 MB**	**64 MB**
	768 KPS	768 K	3 MB	12 MB	24 MB	**48 MB**
	512 KPS	512 K	2 MB	8 MB	16 MB	**32 MB**
	384 KPS	384 K	1.5 MB	6 MB	12 MB	24 MB
	256 KPS	256 K	1 MB	4 MB	8 MB	16 MB

Note **(*):** A GB switch is required for band values marked in **bold**.

4. Main features

Surveillance	Alarms:
	• Motion detection
	• Digital input activation
	Video input masking function.
	Privacy:
	• Access area filtering
	• Timed recording
	System log for:
	• Alarms
	• Events
	• Errors
	• Device activities (i.e.: login)
Guaranteed simultaneous functions	REC + RTV + PLAYBACK + VIDEOSERVER + REMOTEPLAYBACK
Security and privacy	Data security guaranteed recorded via CRC and CRYPTO.
	Several level password administration, compatible with domestic Privacy regulations.
Device connection	Control of up to a maximum of 64 Teledata video cameras of four-channel Teledata Video Servers
	Connection via Ethernet cable (locally)
	Connection and data routing via IP protocol (in remote)
	Up to ten virtual monitors with maximum 64 split each.
	Transmission protocol management:
	• UDP
	• TCP
	• HTTP
	Video quality and band use parameter management:
	• Resolution
	• Bit Rate
	• FrameRate (1-25 fps)
	• Jitter (in playback)
	Video streaming compression algorithms:
	• H264
	• MPEG4
	Independent video controls (Bright, Contrast, Sat, Hue) for each channel
	Circular recording.

Speed Dome video cameras	Speed Dome local connection via Ethernet cable
	Remote PTZ position control
	16 position rotating Tour settings
Recording	Timed recording length after a movement or input signal.
	Weekly and holiday calendar management to enable recordings.
	Recordings also in formats: SXGA (1280x960), SXGA+(1400x1050), HD 720 and HD 1080.
Video camera settings	Online access to video camera firmware for advanced parameter settings.
Virtual Monitor	Up to 10 virtual monitors (49 split each) to view images from Remote Client.
Playback	Recording date and time field search.
	Snapshot display in jpg format
Digital inputs/outputs	Video camera input/output on/off control
	Four relay expansion board (optional) to manage motion alarms. .
Remote control	Full video camera settings via web
Data export	USB key, DVD.

5. Installation software

5.1 Net Eye Server or Client Installation

Introduction   NetEye is supplied on CD, in a self-installing exe file that includes both the Server and Client versions.

Description   NetEye installation can be used to install:

- **Server**: to record, view and playback video cameras in a LAN
- **Client**: to playback one or more NetEye. If the computer is accidentally shutdown, the software does not automatically reboot.
- **Client24h**: to playback one or more NetEye. If the computer is accidentally shutdown, the software automatically reboots.

To install NetEye Client or Server:

1. Double-click NetEye.exe and specify a different folder to copy files to if necessary.

2. When finished, click **OK**: codecs and necessary components are installed.

    For automatic Microsoft packet updates, complete them and, if the next window does not appear, launch Installer.exe from the installed folder (i.e.: c:\NetEye7) to continue the installation.

3. Select the type of installation

4. Click **Next**

5. Confirm dll installation until the installation is successfully completed without errors.

6. Click **OK**.
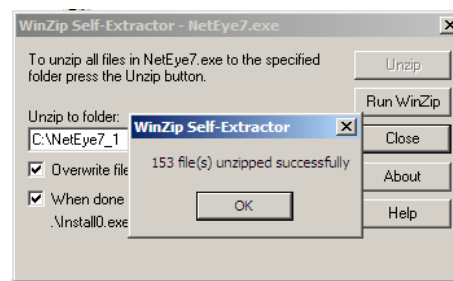
7. From menu **Start, Programs, Automatic execution** select **NVRLauncherUpdate**: NetEye launches and the main window opens.

8. Channels appear darkened since the video cameras were not yet set. *See chapter 10 NetEye.*

NetEye will automatically open whenever the computer is turned on.
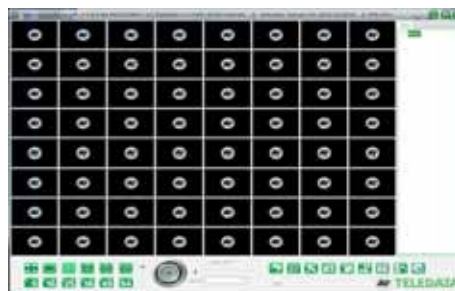
To close NetEye and/or shutdown the computer:

1. When exiting NetEye, click **Yes** to close NetEye and shutdown the computer or **No** to exit NetEye only.

-

To start the computer without launching NetEye:

1. In the windows toolbar, click icon : the maintenance request window appears

2. Select **NVR Maintenance**

3. Click **Minimize**: NetEye will not be launched the next time the computer is started to permit maintenance (i.e.: data disk cleaning).

To permanently delete automatic NetEye launch:

1. From menu **Start, Programs, Automatic execution** delete item **NVRLauncherUpdate**: NetEye can only be started from the installation folder.

-

Create a link on your desktop to open the program when needed.
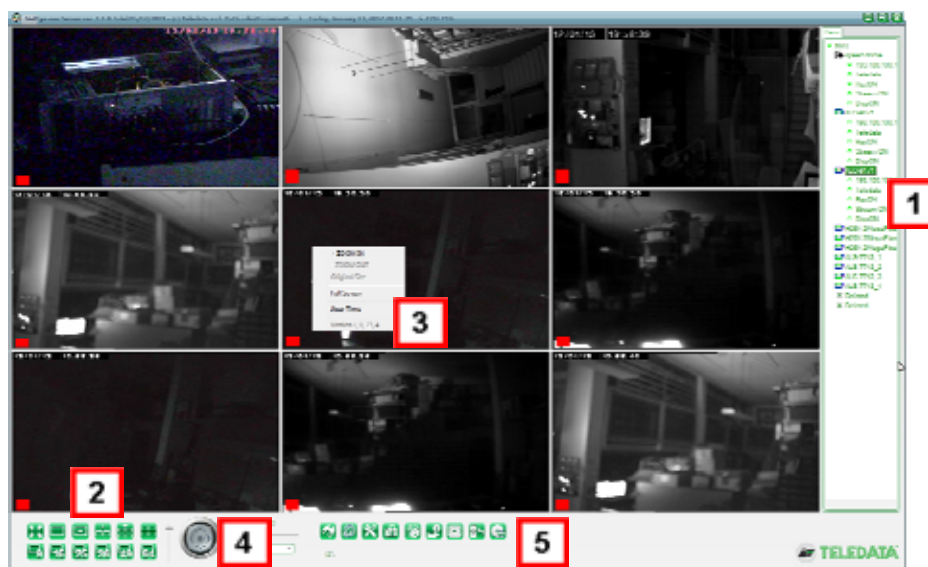
To uninstall NetEye:

1. In the windows toolbar, click icon : the maintenance request window appears

-

2. Select **NVR Maintenance**

3. Delete the folder where NetEye was installed.

6. What NetEye looks like

Introduction   The homepage is divided in various control and command areas.

Description   It appears at start-up and is always displayed on secondary application pages.

Area	Description	Chapter
1	List of connected video cameras and their conditions.	*6.1 Connected video camera* **status.**
2	Display of connected video cameras with up to 64 different chanel splits and relevant split controls	*6.2 Video camera display*
3	Image editing controls	*7.3 Actions on video camera images*
4	Speed Dome controls	*6.3 Speed Dome controls*
5	Playback functions, NetEye administration and settings. Functions are enabled according to the login level (Administrator, Operator, Playback).	*8 System monitoring* *9 System Administration* *10 NetEye*

6.1   Connected video camera status.

Purpose   Lets you:

- view connected video cameras
- check each connected video camera status (i.e.: recording, display)

Description The video camera type is identified by an icon:

- ▯ : fixed video camera
- ⟜ : Speed Dome

Video camera details show the following data:

|	
XXX.XXX.XXX.XXX	IP address
Teledata	brand
RecON, RecOFF	enabled and recording video camera. The recording can also be viewed on the monitored channel (red box)
StreamON, StreamOFF	video camera connected with image flow in progress.
DispON, DispOFF	video camera connected with image flow in progress enabled for view.

The panel displays a tree diagram with all connected video cameras
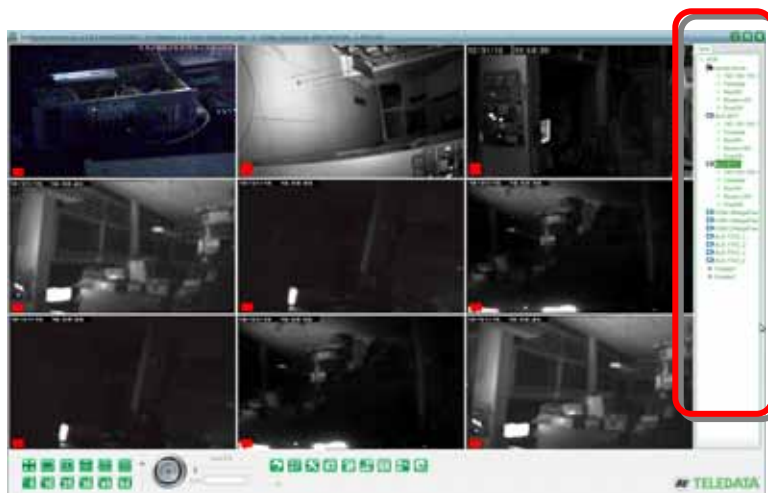
To view video camera status details:

1. Double-click the video camera to view its status.
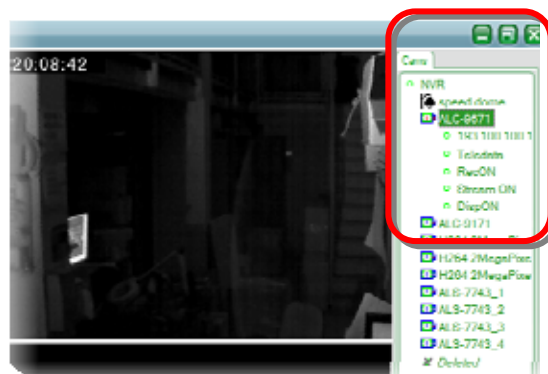
6.2 Video camera display

Purpose
The images acquired by the video cameras in split mode for up to 64 channels simultaneously are displayed in the homepage and single images can be changed.

The following operations are not permitted:

- Changing the position view mode (split, full screen)
- Changing some features in each image *(see chapter 7.3 Actions on video camera images)*

Description
Following are the functions available through buttons:

Button	Description
9	Example of a button with split number. From nine to 64 Work with the minimum split required for the number of installed video cameras for the best image definition and size.
	Display the selected image in full screen mode. Double-click to display the homepage.
	Show the selected image only
+	Example of a button for one, two or four zoomed positions and other smaller ones
	Show only four positions,

To assign a video camera to an image:

1. Select the video camera **[1]** and drag it to the selected channel **[2]**.

   i If a displayed video camera is dragged to an occupied channel, the images switch.

6.3 Speed Dome controls

Purpose   To direct the selected Speed Dome position from remote or use a list of set positions.

Speed Dome controls

Element	Description
Zoom	Enlarge or shrink the frame.
	Joystick for all Speed Dome rotations. Rotation speed can be set.
	Default position selection.

To adjust a Speed Dome:

1. Select the Speed Dome name **[1]** or Speed Dome image **[2].**
2. Select one of the default positions **[3]** or move the virtual joystick to adjust the Speed Dome.

7. Shared NetEye concepts

7.1 Introduction

This chapter describes the functions shared by all profiles or that appear in several points in the program.

To	View the chapter
Open NetEye	*7.2 Changing the Access level*
Change the video camera image.	*7.3 Actions on video camera images*
Set times ranges in the weekly calendar (Administrator only)	*7.4 The weekly calendar*

7.2 Changing the Access level

Purpose If passwords were set, the access level can be changed at any time. If passwords were not set, the system is fully accessible and the change login level function does not appear (*See chapter 9.2 Password settings for functions enabled/disabled for each level).*

> After installation, setting passwords to protect both setting data and recordings is recommended.

Path

Homepage, 🔒 **Login/Logout**

7.3 Actions on video camera images

Description The image acquired by the video camera can be directly edited as you please, without altering settings,

List of possible actions Following is a list of possible actions:

Zoom in Zoom out	Enlarge or shrink the image
Original Size	Return the image to its original size.
Full screen	Same as button ❖, displays the full screen image.
Jitter time	Display delay
Version 1,0,23,0	not used.

Path Right-click each displayed image in the various NetEye panels.

7.4 The weekly calendar

Purpose   The weekly calendar is used in various functions to start recording:

- only in certain time ranges (**Time Range** panel).
- In certain time ranges but consequent to an input signal (**Event Management** panel).
- in certain time ranges but consequent to triggering a sensitive area in the position (**Motion Setup** panel).

Description   The weekly calendar is divided in time ranges represented by several five or 30 minute time intervals.

Following is the color key:

Interval	Description
Red	The half hour is set for recording
Green	The half hour is not set for recording
Purple	The half hour is partially set for recording Click ➕ to display details.
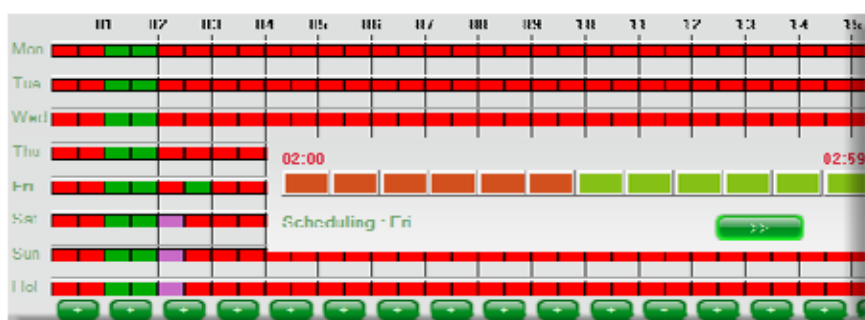
To set a weekly schedule:

1. Click an interval **[1]** on one day in the week (**Mon, Tue**) or holiday (**Hol**),to turn recording on/off in that half hour. *See chapter 11.6 Recording and holiday calendar settings.*

To set time ranges with periods under a half an hour:

1. Click an interval **[1]** on one day in the week or holiday.

2. Click ⊕ **[2]**: details on the half an hour divided in five minute intervals appears **[3]**.

3. Select the intervals to turn recording on/off in that period.
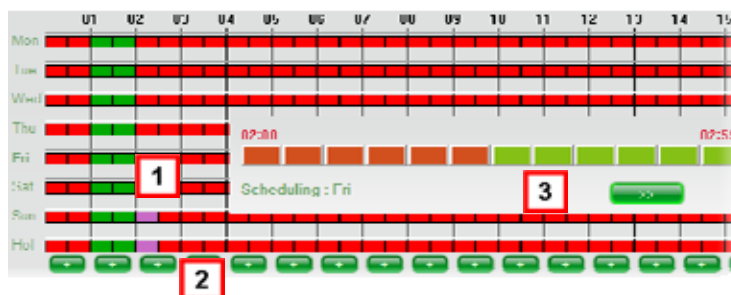
8. System monitoring

8.1 Introduction

This chapter describes typical surveillance operator functions.

To	View the chapter
Open NetEye	*7.2 Changing the Access level*
Change the video camera image.	*7.3 Actions on video camera images*
Take a snapshot of the monitor image	*8.2 Selected image snapshot*
Acknowledge an alarm	*0* *Alarm* acquisition
Playback recordings or view snapshots	*8.4 Recording playback and snapshot display*

8.2 Selected image snapshot

Purpose   Save a frame of the playback video.

Description   A snapshot can be taken at any time from the selected video camera. The saved image can be displayed and used in the **Playback** panel *(See chapter 8.4 Recording playback).*

To take a snapshot of the video camera image :

1. Select the video camera **[1]** or image **[2]** .

2. Click 📷 : the snapshot is saved.

8.3 Alarm acquisition

Purpose　　　Mute any buzzers or interrupt actions started by triggered alarms.

Description　When an alarm from inputs or outputs or image analysis triggers (i.e.: Motion Detection) a red LED turns on under the acquisition button.

If set, alarms can trigger external devices (i.e.: a buzzer).

The alarm and its acknowledgement are logged in the log file.

Impulse relays do not require alarm acknowledgement.

To acquire an alarm:

1. Click [1]: the red LED under the button disappears.
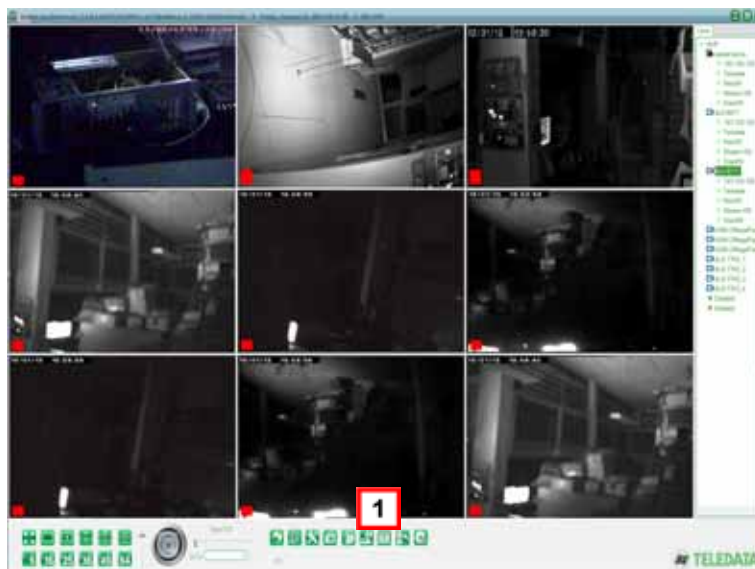
8.4 Recording playback and snapshot display

Purpose　　　The panel lets you:
- Playback all saved recordings.
- Review the video camera events and directly open the concerned recording
- View snapshots and copy them to other support devices

Only the Administrator can copy snapshots.

Description　Each video camera enabled to record creates about 8-minute files. The number of recordings depends on both the recording settings and disk capacity (typically five days of recordings).

NetEye Client   This panel lets you playback recordings from:

- IP video cameras and video server (typically in a LAN)
- SteelEye (previously set in the **IP Channel** panel).

 A memo can be added for all connected NetEye Server IP addresses in the **NetEye Setup** panel.

Path

Homepage, **Playback**

Area	Description
1	List of eight-minute recordings on the hard-disk.
2	**Media files**: amount of recordings currently on file. Currently selected recording. **Start, End**: first and last recording date-time. Recording search area (date and time).

Area	Description
3	List of video cameras to be selected.
	Event list: displays the list of events/alarms in the last 30 days for the selected video camera in the area below. Click a Motion Alarm event to directly open the recording.
	If no events occurred, the area is empty.
	Snapshot: opens the folder with selected video camera snapshots (Administrator only).
	Dimens. True: displays the recording with actual image dimensions.
4	**Position**: Manual positioning in the recording.

To playback a recording:

1. Double-click a video camera **[1]**.
2. Set the end of the search period **[2]** and click **Search** or select the recording from the list **[3]**.
3. Playback the recording **[4]**.

To display snapshots:

1. Double-click a video camera **[1]**.
2. Click **Snapshot**: the system folder **[2]** with the snapshots taken by that video camera appears.

   To save files to a USB key, under Windows, drag them to the device.
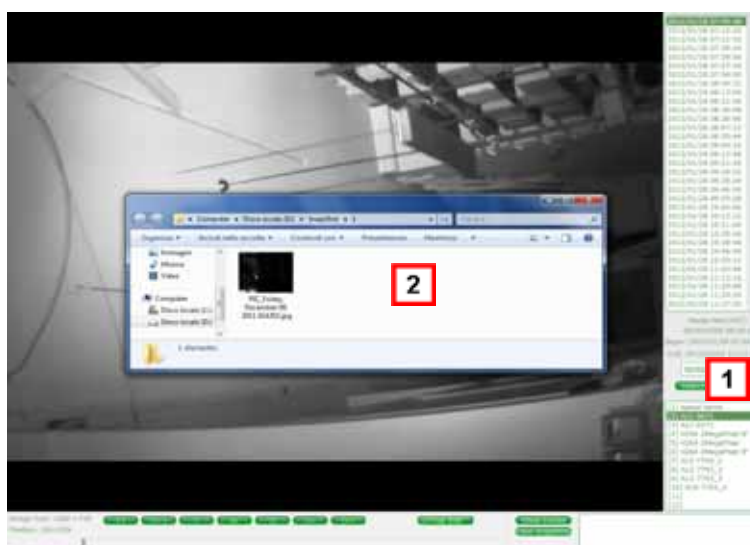
(NetEye Client) To playback a recording from video cameras that were or were not set:

1. Select a video camera and click
   🔲

or

2. Click **NVR** and enter the address, playback password and video camera index

Result: the recording playback panel opens.

3. Set the end period for the search **[1]** and click **Search**

4. Playback the recording **[2]**.

ℹ️ Normally, set video cameras are any SteelEye cameras while an IP address can be entered for NetEye cameras.

9. System Administration

9.1 Introduction

This chapter describes typical system administrator functions.

To	View the chapter
Set passwords	*9.2 Password settings*

9.2 Password settings

Purpose   The panel lets you set three protected system login levels:

- System administrator (Privacy Guarantor)
- Operator (event, alarm, calendar settings)
- Playback

If no access level is set, the system provides free access to all functions (helpful during installation).

Login after setting levels. Otherwise the **no login** level is active and many system functions are not enabled.

In those countries where privacy laws are in effect, this settings phase is mandatory.

The **Operator** and **Playback** login levels are available after setting the **Administrator** level.

After completing installation, set passwords to protect data and recording settings.
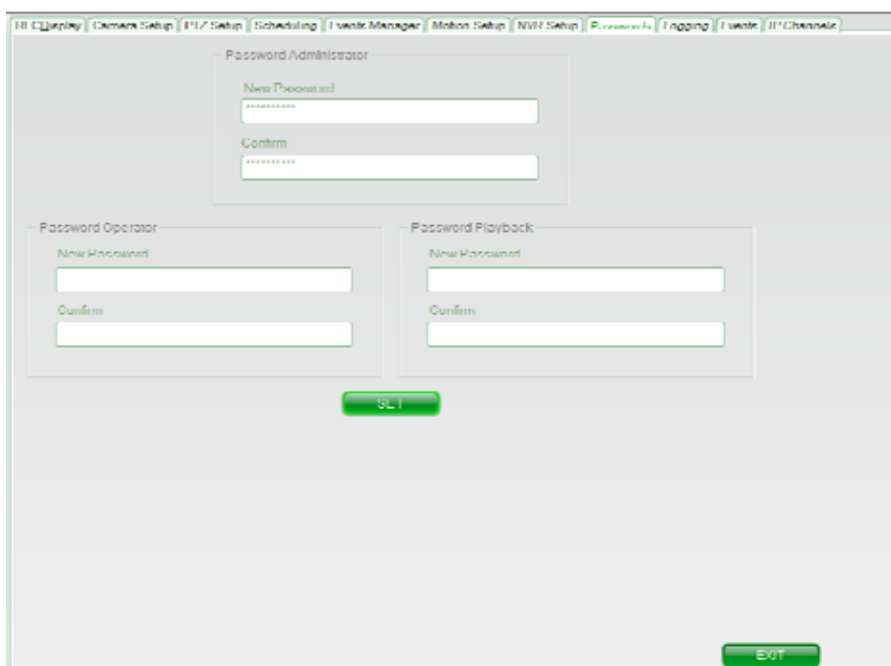
Description Functions enabled for the various access levels are listed below

	Playback	Operator	Administrator or no password
Display	X	X	X
Split	-	X	X
Speed Dome control	-	X	X
Alarm acquisition in progress	-	X	X
Configuration	-	X	X
Display video camera info	X	X	X
Snapshot	-	X	X
Playback	X	-	X
Export data	-	X	X

Path
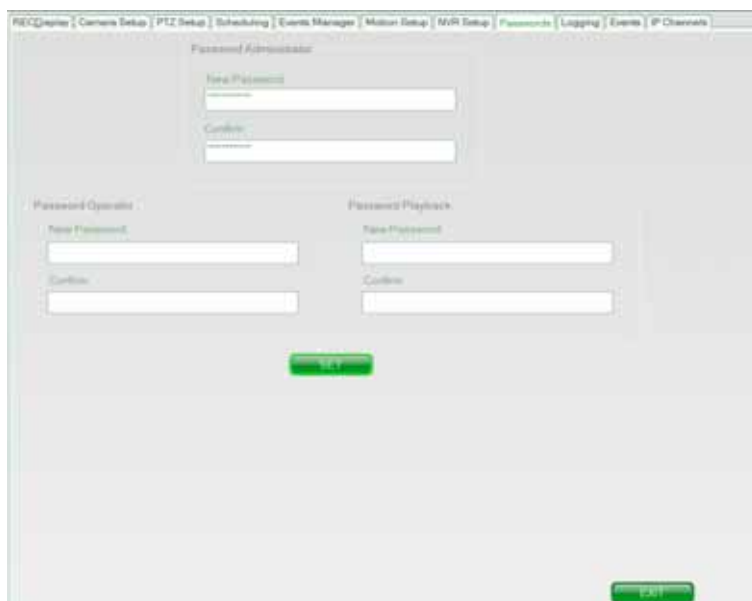
Home page, [icon], **Passwords**.

1. Enter the password in each profile

2. Click **SET**: the system opens in the **no login** level.

3. Click **EXIT**: click in the homepage to open NetEye with the required level.

9.3 Exporting recordings to USB keys

Purpose   The panel lets you export recordings available for one or more video cameras to a USB key.

To save files to CD or DVD, use the **CD/DVD burn** function.

Description   Based on the selected period, the system displays the video cameras that made recordings. Some video cameras can be unselected before export.

Use the **Calculate dimension** function to obtain the necessary space on the removable device.

Path

Homepage, **Backup to USB key**
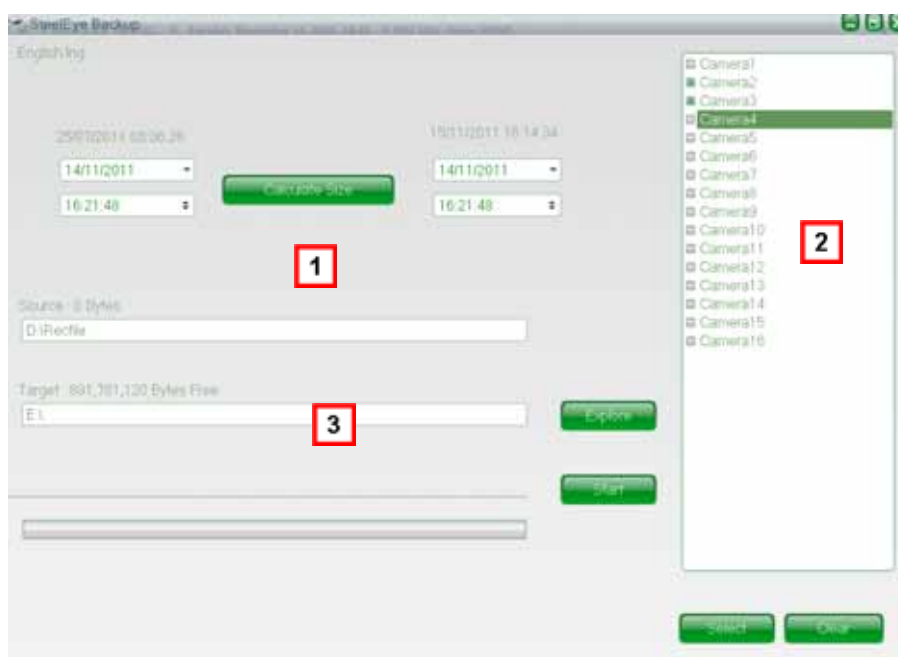
Area	Description
1	Area where the recording interval is set and necessary space is calculated.
2	List of video cameras to be included in the saved file.
3	Area where necessary and available space is calculated and the saving procedure started and progress monitored.

To save several recordings:

1. Insert the USB key.

2. Click **Select** or **Unselect** and click on the single video cameras to be included/excluded from export **[1]**.

3. Set the period **[2]** and click **Calculate dimension**: the calculated value appears in **Source [3].**

4. Click **Explore** to select a specific folder.

5. Click **Start** to copy.
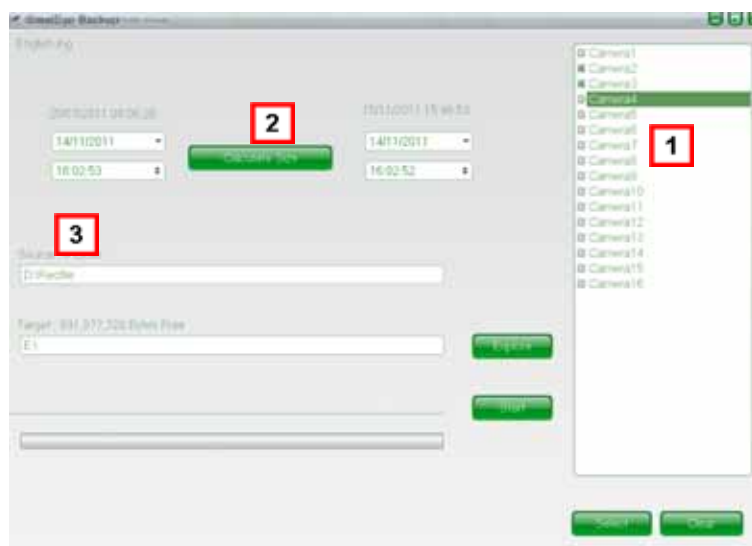
9.4 Exporting recordings to CD or DVD.

Purpose   The panel lets you save available recordings for one or all video cameras to CD or DVD.

> To save files on a USB key, use the **Backup to USB key** function.
>
> R/W support content can be deleted from this panel.

Description   The system calculates the space needed to save one or all video camera recordings and graphically displays it compared to loaded CD/DVD capacity.

> Use the **Search** function to obtain necessary space on the CD/DVD.
>
> **Abort** and **Erase Disk** functions can only be applied to R/W supports.

Path   Homepage,
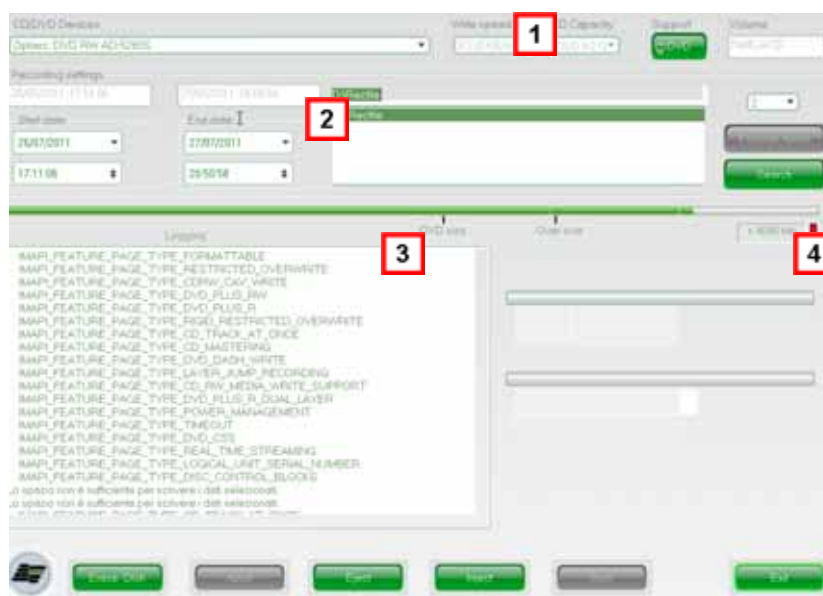
Area	Description
1	Area where the type of CD/DVD is indicated.
2	Area where the recording interval and video cameras to be exported is indicated and where necessary space calculations is requested.
3	Area where necessary and available space, message area, save procedure and save progress is checked.
4	Signals space exceeding the loaded volume.

To export recordings for one or all video cameras to CD/DVD:

1. Set the CD/DVD and copy **[1]** features.

2. Set the concerned period, select one or all video cameras **[2]** and click **Search**: the calculated value with any overflow messages **[3]** appears.

3. Click **Burn** to copy.
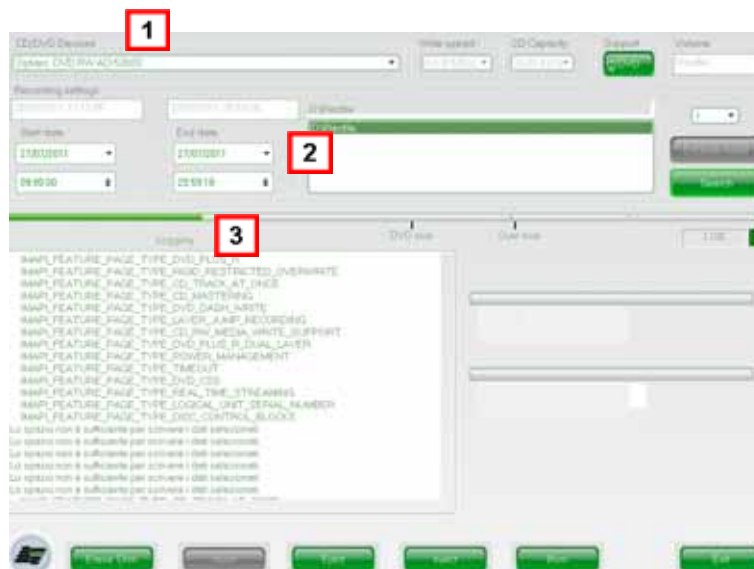
10.NetEye Server settings

10.1 Introduction

This chapter describes typical installer functions.

To	View the chapter
Learn how to prepare for installation	*10.2 Installation assumptions*
Standard NetEye Server settings	*11 Standard*
Advanced NetEye Server settings	*12 NetEye Server*

10.2 Installation assumptions

First installation addressing

Video cameras must be addressed after completing software installation. Following is the typical first installation procedure:

1. Set the progressive IP address directly on the video camera before installing it, being sure that it belongs to the same domain as the computer where NetEye is installed.

2. Install and connect all the video cameras, any sensors or connected devices

3. Using the **Find IP video cameras** on the network function, let NetEye find all video cameras and assign them a name and stream features on the channel. If some video cameras were connected with factory set IP addresses, edit them.

4. Use the **IP Channels** function to specify the user name and password if you want to use the Online video camera setup function.

5. All video camera images are now visible

Login settings

Where necessary, data access and machine settings can be password protected. *See chapter 9.2 Password settings.*

In those countries where privacy laws are in effect, this settings phase is mandatory.

11. Standard NetEye Server settings

11.1 Introduction

Following is the suggested standard NetEye settings sequence:

Step	Description	Chapter to read
1	Searching for connected video cameras and assigning IP addresses	*11.2 Searching for connected video cameras and assigning IP addresses*
2	General settings and the creation of a virtual monitor for Remote Client, if necessary	*11.3 General settings*
3	Main settings for each fixed video camera.	*11.4 Fixed video camera settings*
4	Main settings for each Speed Dome video camera and Preset and Tour position settings.	*11.5 Speed Dome video camera settings*
5	Programming recordings for time ranges for each video camera and holiday settings.	*11.6 Recording and holiday calendar settings*
6	Selecting video cameras for continuous recording or turning off all video cameras.	*11.7 Enabling video camera display and recording*
7	Recording and input settings or activating an output when an input or motion alarm triggers for each video camera.	*11.8 Recordings or output activation on events*
8	Recording and Motion alarm settings for each video camera	*11.9 Motion Alarm Settings*

Furthermore, the following log and alarm control functions are described:

Description	Chapter to read
Displaying alarms/events and log messages	*11.10 Display alarm/event and log messages*
Displaying the alarm/event log	*11.11 Display daily alarm/event log*

11.2 Searching for connected video cameras and assigning IP addresses

Purpose
The **Find IP video cameras on the network** panel lets you:

- add new video cameras (fixed or Speed Dome) or video servers to the network, assigning them the correct IP address.

> The ACTi board shows ACTi video cameras in the network and their settings but does not let you add them to NVR.

Description
On first installation, this function helps you to find all connected video cameras that have either a correct IP address or factory set address.

> Use this function first to find and add video cameras. If access data and the type of stream need to be set, use manual video camera settings. *See chapter 12 NetEye Server.*
>
> Enter the position of the video camera in the tree diagram in its name; this makes all setting operations easier (i.e.: 5 – TLC gate)

NetEye Client
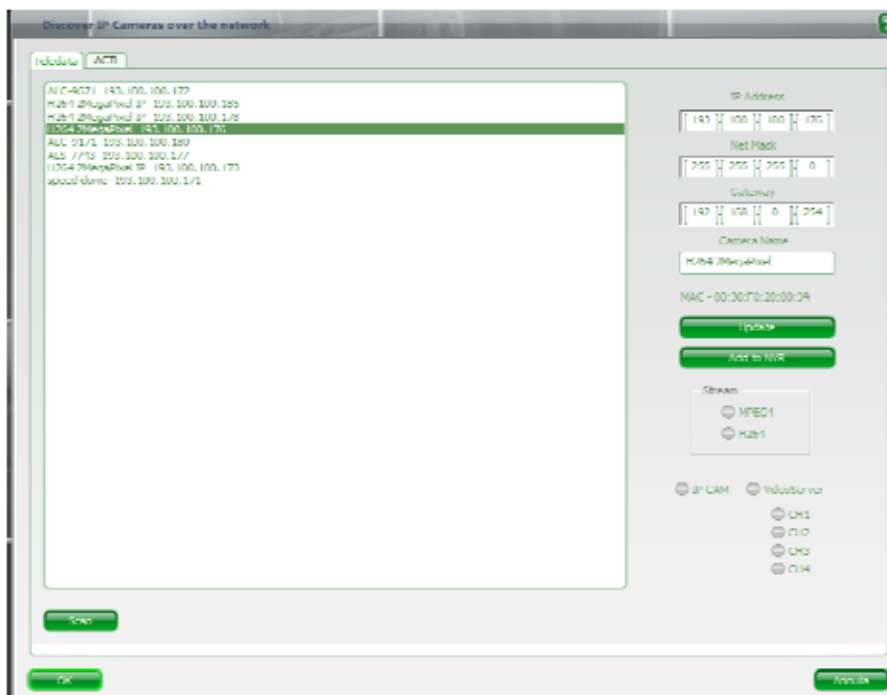In a Client installation, the function finds the following in a LAN:

- IP video cameras.
- video servers

Any connections to SteelEye must be specifically added in the **IP Channel** panel.

Path

Home page,

Data	Description
IP address **Net Mask** **Gateway**	Video camera or video server IP address and any Gateway for output on WAN ⚠️ The IP address must belong to the same domain as the computer where NetEye is installed. For video server, channels will have the same address. The channel and name must be set for each channel.
Stream	Video camera (**IP Cam**) or Video Server (**CHx**) stream type.
IP Cam	The IP address belongs to a video camera.
Video Server **CHx**	The IP address belongs to the selected video server channel

To find and add connected video cameras to NetEye:

1. Click **Show**: connected video cameras appear as they are found **[1]**.

2. Select the video camera or video server channel **[1]** to be added to NetEye

3. Enter the required addresses and name **[2]**

4. Select the stream type and channel **[3]**

5. Click **Update** and then **Add to NVR**: the video camera is set with the new address and added to the list of video cameras
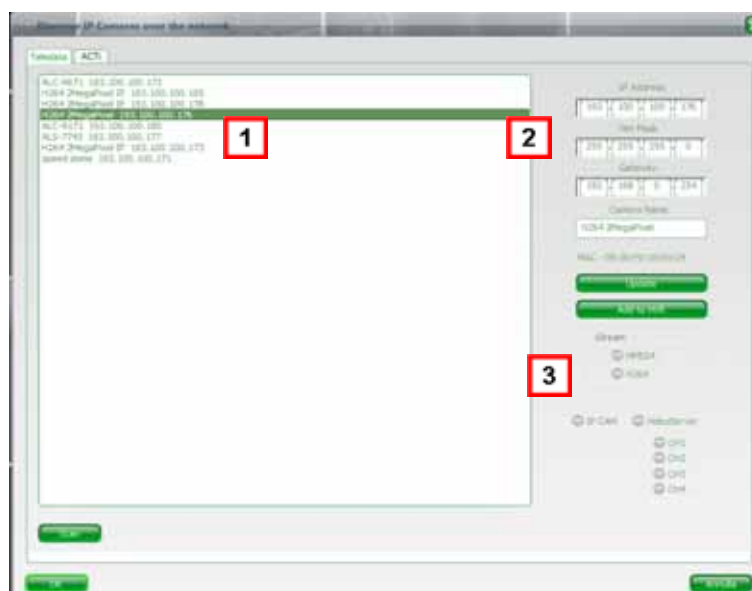
11.3 General settings

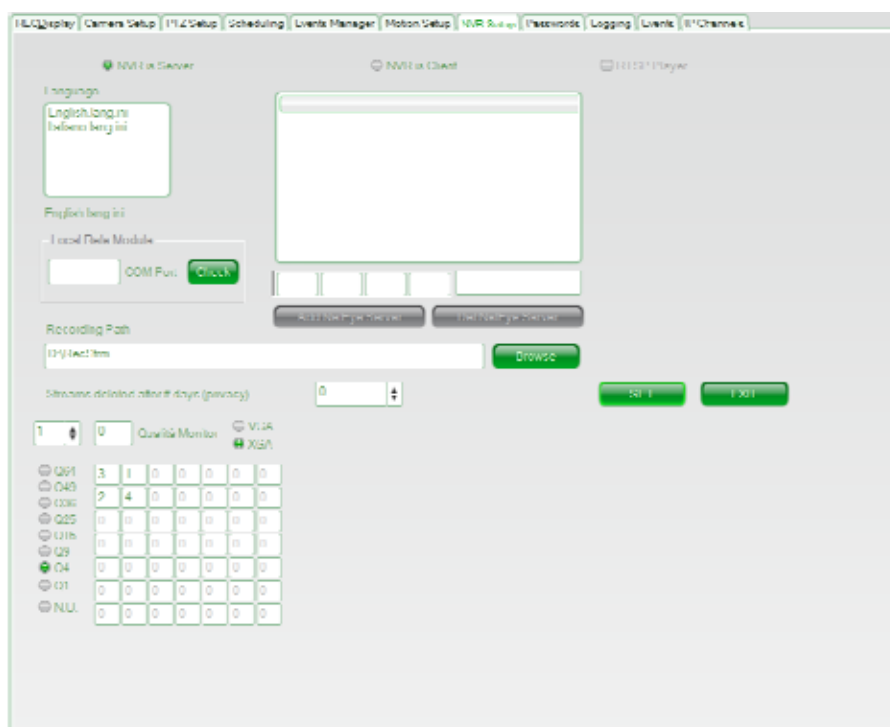**Purpose**   The **NetEye Setup** panel lets you:
- change Client/Server mode
- set some general settings (i.e.: language)
- test relay boards (optional)
- set up to 10 virtual monitors for Remote Client

NetEye Client   In NetEye Client, this panel is used to add NetEye Server memos for image playback.
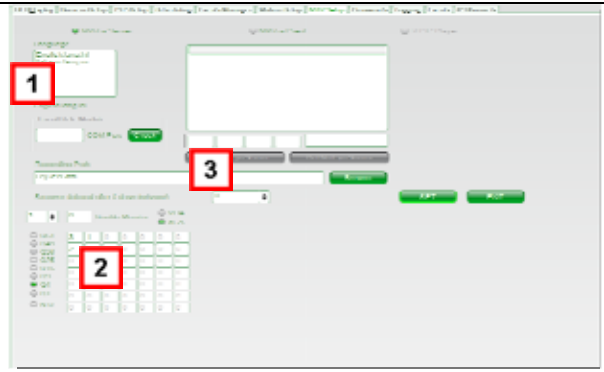
Path   Home page, 🛠️, **NetEye Setup**.

Data	Description
NVR Server mode	NetEye works like a Server. Requires PC reboot.
NVR Client mode	NetEye works like a Client. Requires PC reboot. The connected NetEye server IP addresses can be manually entered as a memo only.
RTSP Player	Player mode in client version (leave selected)
Language	Set the interface language
Local Output Module	Select the COM port connected to the optional relay board *(see chapter 11.8 Recordings or output activation on events).* **Check**: press this button to check for the board. To identify the number of the COM port connected to the device use the Windows **Device Management** application.
NVR IP Address	(NetEye Client only) IP addresses and names assigned to the NetEye Server to be connected to.
Recording Target	Fixed disk or partition where video recording and snapshot files are saved.
Delete Images after Days (privacy)	Days permitted by privacy regulations to keep recordings before erasing them. **0**: record until disk full, then overwrite oldest data. **x**: number of recording days.

Data	Description
Monitor Quality	Playback image quality on Remote Client virtual monitors. **100**: maximum image quality. The value affects the transmission BitRate between NetEye and Remote Client. High image quality leads to higher band use or saturation.
VGA **XGA**	Remote Client virtual monitor resolution. **VGA**: 640 x 480 **XGA**: 1024 x 768

To set Remote Client virtual monitors

1. Select one of the 10 virtual monitors **[1]**

2. Select the number of splits for the monitor **[2]**

3. Enter the number of the video camera for each enabled split **[3]**

11.4 Fixed video camera settings

Purpose

The **Video Camera Setup** panel lets you:

- view video camera network settings
- set playback image quality and features

This panel lets you calibrate your playback image quality needs to the real transmission band capacity,

You can set the best quality, fluidity and error control for the most important video cameras only leaving essential image display to more "service" video cameras so as not to saturate available band.

Streaming values are directly read by the selected video camera.

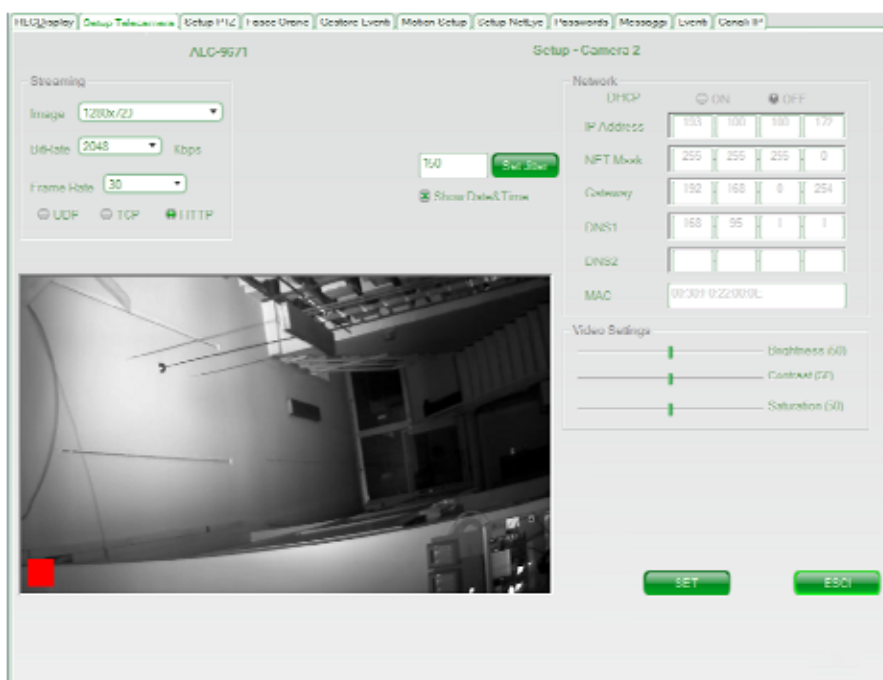For advanced settings *see chapter 12.4 Advanced video camera settings.*

NetEye Client

In NetEye Client, the purpose of this panel is to show/change the selected video camera IP address and index.

Path

Homepage, 🛠, **Video Camera Setup**, double-click the video camera

Data	Description
Streaming	**Image:** video camera resolution.
	BitRate: band used by the video camera. A high value indicates higher quality and higher band use.
	Frame Rate:frames acquired per second.
	UDP: *User Datagram Protocol,* protocol not focused on connection quality but used when reliability is not the primary target. The advantages of UDP are the speed and lower network congestion than TCP (no confirmation packets) and the possibility of transmitting in *multicast* (sending a packet to a group of hosts) and *broadcast* mode (sending a packet to all hosts in a network segment). UDP protocol works well in a local network but may fail if used in a larger network
	TCP: *Transport Control Protocol*, network protocol par excellence. TCP/IP set the routing rules for data packets along the entire network; it ensures that all packets sent to a remote computer actually reach their destination.
	HTTP: transmission protocol with control on the connection between the sender and receiver.
Set Jitter	Video playback delay, helpful in reducing band congestion in the event of network orverload.
	It does not affect recording image fluidity.
Show Date&Time	Displays the current date and time on images in both playback and recording.

Data	Description
Network	Main video camera setting display.
Video Settings	Standard filters to be applied to images acquired by the video camera.
Client Playback	(NetEye Client only) selected video camera IP address, name and index. Data is automatically updated for video cameras connected to SteelEye.

11.5 Speed Dome video camera settings

Purpose
The **PTZ Setup** panel lets you:
- set up to 16 Preset positions.
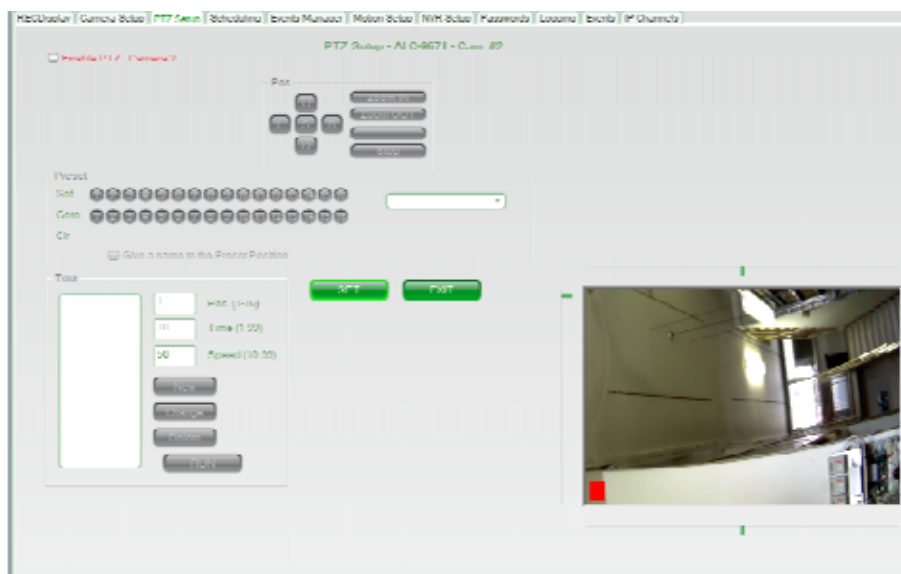- set a Tour of maximum 16 Preset positions

Path

Homepage, , **PTZ Setup**, double-click the video camera

Description
Preset positions can be selected during playback in channels *(See chapter 6.3 Speed Dome controls)*

Data	Description
Enable PTZ – Camera x	Recognizes the selected video camera as a Speed Dome and enables all panel controls.

Data	Description
Pos	Virtual joystick used to position and size the Speed Dome position **U**: move up **L**: move left **R**: move right **D**: move down **S**: stop Speed Dome movement **Zoom IN, Zoom OUT**: size **Stop**: stop resizing. Use the cursors on the sides of the video channel in alternative: • Top **[1]**: zoom • Side **[2]**: up-down • Bottom **[3]**: left-right
Preset	**Set**: set up to 16 Preset positions **Goto**: Select one of the 16 Preset positions. **Name the Preset position:** Assign a name to each Preset position.
Tour	Set a tour of maximum 16 positions. **Pos (1-16)**: number of the Preset position to be added/replaced/deleted. **Time (1-99)**: (seconds) duration in the position **Speed (10-99)**: (seconds) speed of movement from one position to the next **New**: add the indicated Preset position to the Tour **Change**: change the selected Preset position with the one indicated **Delete**: remove the selected Preset position **RUN**: run the tour.

To set a Preset position:

1. set the required position with the joystick **[1]** or cursors **[2]**

2. In **Preset** click on the position number (**Set**) **[3]**

3. Select **Name the Preset position** and enter the name (i.e.: North gate) **[3]**

> ℹ️ To move the video camera to a position, click the number (**Goto**).
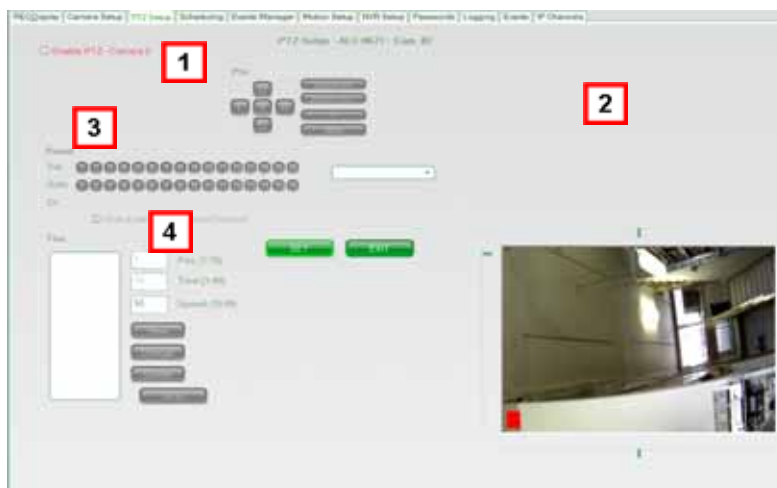
To set and test the Tour:

1. Set the Preset positions using the previous procedure

2. In **Pos (1-16) [1]** enter the number of the Preset position and in **Time (1-99)** and **Speed (10-99)** the duration and switch speed.

3. Click **New** to add a position to the Tour

4. Repeat points 1 to 3 for all required positions.

5. Press **RUN** to test the Tour.

> ℹ️ To change or delete a Preset position, select it and click **Change** or **Delete**.
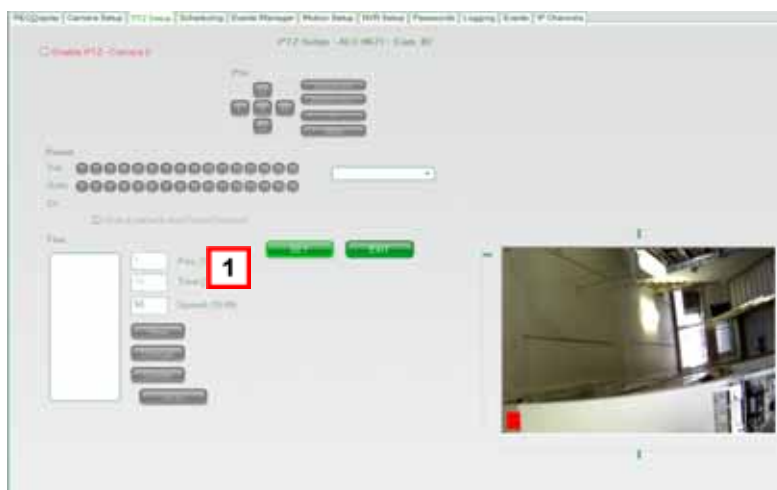
11.6 Recording and holiday calendar settings

Purpose　　　For the selected video camera, the **Time Ranges** panel lets you:

- program recordings on a weekly schedule
- set holidays on a yearly basis

> ⚠️ Holidays are shared by all functions based on time ranges *(see chapters 11.7 Enabling video camera display and recording, 11.8 Recordings or output activation on events, 11.9 Motion Alarm Settings)*
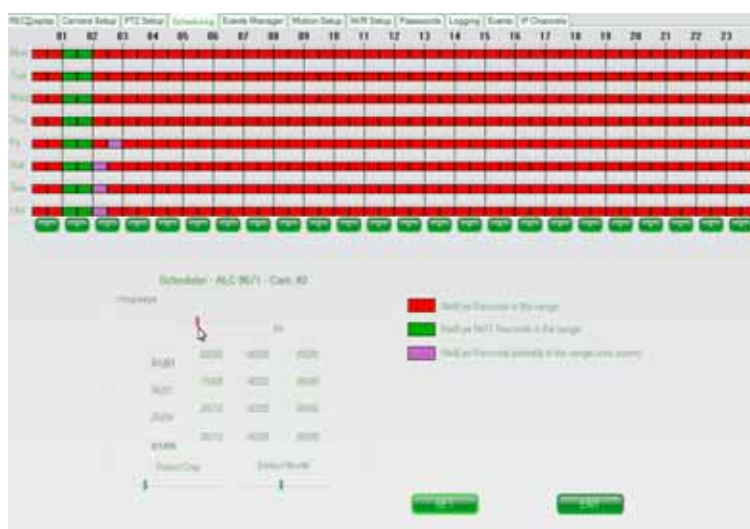
Path

Homepage, 🛠️, **Time Ranges**, double-click the video camera

To program recordings for the selected video camera:

1. Set recording time ranges *(see chapter 7.4 The weekly calendar)*

2. Click **SET** to save data.

3. Enable the video camera to record in the **RecDisplay panel**

To set holidays for the selected video camera:

1. In **Holidays** select a date to be changed or a free one (00/00) using the cursor.

2. In **Month Selector** move the cursor to the holiday month.

3. In **Day Selector** move the cursor to the holiday day

4. Click **SET** to save data.

11.7 Enabling video camera display and recording

Purpose   The **RECDisplay** panel lets you start/end video camera recordings according to a time range (**Time Ranges** panel), enable display and turn off a video camera for maintenance.

⚠️ Video cameras used for recordings based on Motion alarms (**Motion Setup** panel) or on Events (**Event Manager** panel) should not be enabled in this panel..

Path

Home page, 🛠️ **RECDisplay**

Data	Description

Data	Description
Record x **Show x**	Enable/disable the video camera x for display on main monitor and/or recording.
Disable x	Disable video camera display, recording and event management.
All recording **None recording**	Select/unselect all video cameras for recording,

11.8 Recordings or output activation on events

Purpose   The **Event management** panel lets you:

- Start recording for a certain duration when the input connected to the video camera is activated. The input is activated according to the set time range.
- Activate the video camera output after at least one motion alarm or when the video camera input activates
- Activate optional relays for the area that signals the motion alarm
- Test digital outputs (on the video camera or optional relays)

Video cameras that only record on event should not be enabled to record in the **RECDisplay** panel. While they can also record on Motion alarm (**Motion Setup** panel).

The video camera only records after an event. Events are recorded in the log file. See the **Messages** and **Events** panels.

Recording on event saves disk space.

Path

Homepage, , **Event Management**, double-click the video camera

Data	Description
Digital Inputs	**Norm. Closed Input**: video camera digital input idle when grounding closed.
Digital Outputs	Digital outputs activated by different types of input signals: **No output activation**: output disabled. **Enabled from Motion Detection**: output enabled when the selected video camera Motion Alarm triggers. *See chapter 11.9 Motion Alarm Settings).* **Enabled from Input**: output enabled by the activation of a digital input on the selected video camera. **Length**: (seconds) length of output activation. **NVR Rele <number>**: activates the relay <number> on the relay board (optional) when the motion alarm triggers in area <number> (i.e.: NVR relay 1 triggers when area 1 is in alarm conditions. **TestR1, TestR2, TestR3, TestR4**: switches the relays in the optional board to test mode. **Test Out**: switches the selected video camera digital output.
Recording length on I/O	(seconds) Length of the recording started by the digital input on the selected video camera.

To program recording on an event or in a certain time range:

1. Set the time range in which event management is enabled

2. Click **Norm. Closed Input [1]** if required by the sensor type.

3. Enter the appropriate value in **Recording length on I/O [2]**

4. Click **SET** to save data.

To enable a device connected to the video camera:

1. Set the time range in which event management is enabled

2. Select whether the output is enabled by a motion alarm or when the input is activated **[1]**

3. Set the length of output activation **[2]**

4. Click **SET** to save data.

To activate a device connected to NetEye with the relay board (optional):

1. Set motion parameters in the **Motion Setup panel.**

2. Select the relays for the areas set in Motion alarm management.

3. Set the length of output activation **[2]**

4. Click **SET** to save data.

Test the outputs:

1. To test the relay board or video camera digital output, select one or more relays to be activated **[1]**

2. Click **On** to switch the relays and digital output

11.9 Motion Alarm Settings

Purpose

The **Motion Setup** panel lets you:

- turn on Motion Detection only in some time ranges
- set up to three Motion Detection areas

Video cameras that only record on Motion alarm should not be enabled to record in the **RECDisplay** panel. While they can record in the **Event Management** panel.
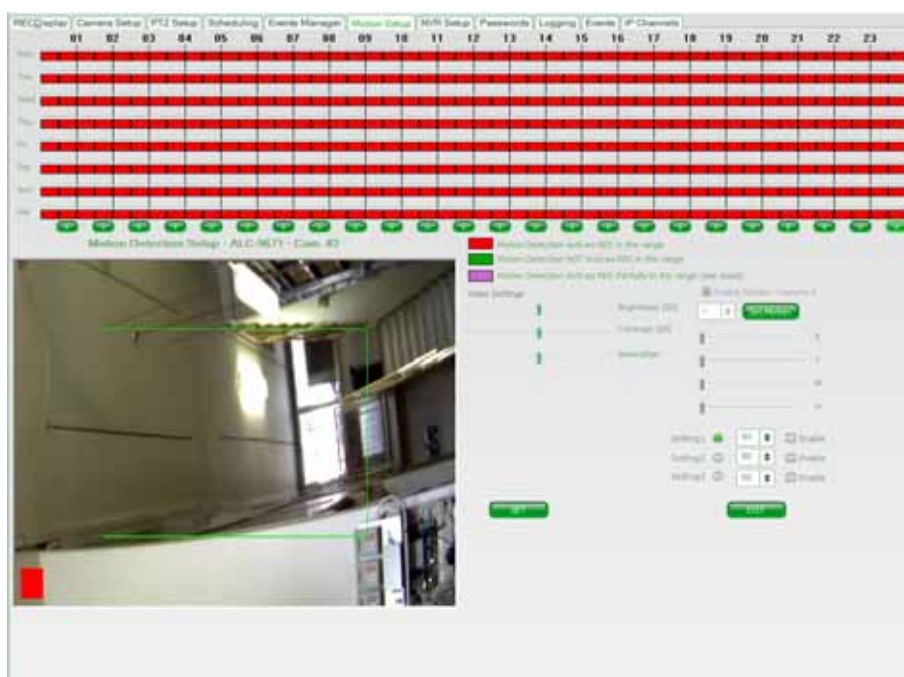
Path

Homepage, [icon], **Motion Setup**, double-click a video camera

Description

Managing Motion alarms saves disk space.

For information on how to set time ranges *see chapter 7.4 The weekly calendar.*

Data	Description
Video Settings	Standard filters to be applied to images acquired by the video camera.
	Brightness
	Contrast
	Saturation
SetRng<numero>	Displays the area for Motion Detection and allows sensitivity to be edited (in %).

To set a motion detection area

1. Set the time range when the Motion alarm is enabled.

2. Select the area to be set **[1]** and set sensitivity

3. Identify the area, drag it and size it by dragging the borders **[2]**.

4. Set standard filters **[3]**

5. Click **Enable [1]** in the area

6. Click **Set Motion to** save Motion settings

7. Click **SET** to save,

11.10 Display alarm/event and log messages

Purpose   Show all alarm and event messages on all video cameras signaled during the last week.
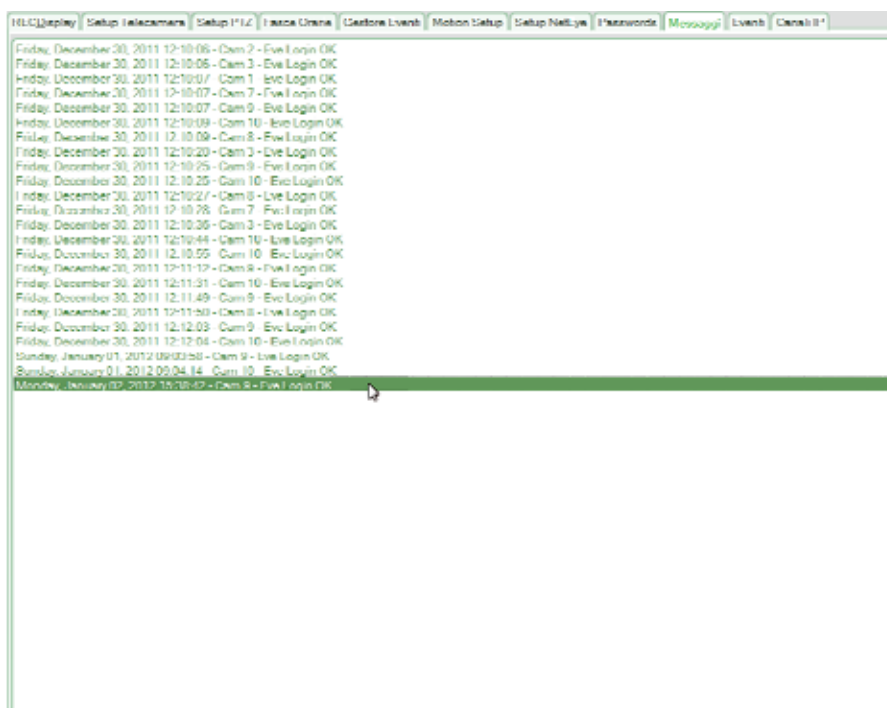
For details on events and alarms filtered by day or video camera, use the **Events** panel.

Path

Homepage, [icon], **Messages**.

11.11 Display daily alarm/event log

Purpose   The **Events** panel lets you:
- view alarms recorded on the selected day
- search alarms/events by type
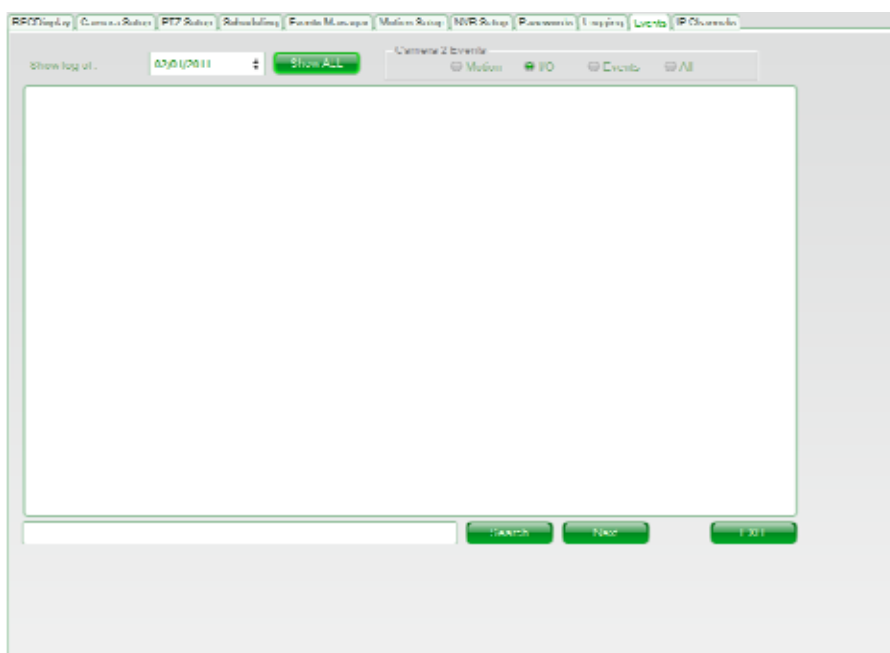- search alarms/events by part of the message text.

Description   The function displays the alarm and event log for the selected video camera, saved due to:
- Motion alarms
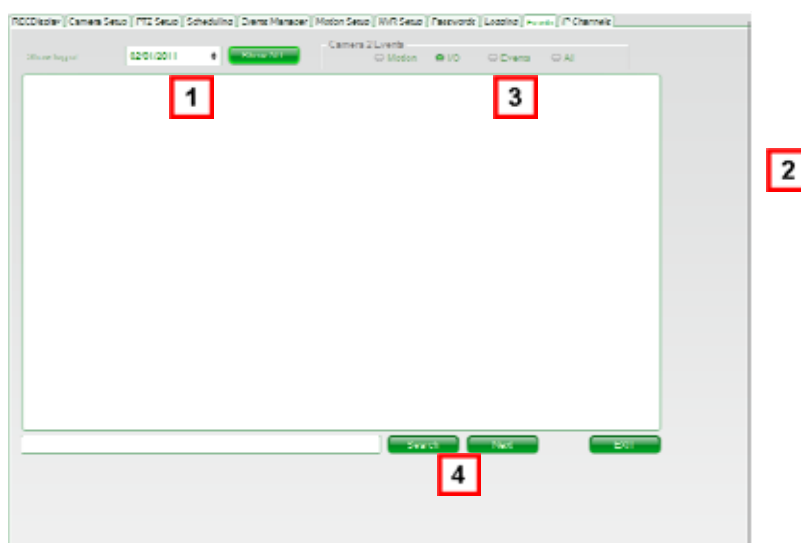- video camera input alarms

Path

Homepage, [icon], **Events**, double-click the video camera

Data	Description
Display Log on:	Day in which alarms/events are displayed.
See ALL	Displays logs for all video cameras for the selected day.
Camera \<number\> Events	Allows events/alarms to be selected by type on the selected video camera. **Motion**: displays alarms generated by Motion analysis only. **I/O**: shows events linked to video camera inputs and outputs **Events**: shows system events not classified as alarms (i.e.: login, video camera unavailable) **All**: displays all alarms/events saved for the selected video camera.

To search for an alarm/event on a specific video camera:

1. Select the day **[1]**.

2. Select the video camera **[2]**

3. Select the type of alarm/event **[3]**.

4. Enter the text to be searched and click **Search [4]**

5. Continue searching by clicking **Next**.

12.NetEye Server Advanced settings

12.1 Introduction

Following are functions that help with advanced settings:

To	View the chapter
Display all video camera settings	*12.2 Display IP video camera information*
Set video camera channels assigning a user name and password for advanced settings.	*12.3 Manual video camera addressing*
Set special parameters or update video camera firmware	*12.4 Advanced video camera settings*

12.2 Display IP video camera information

Purpose

The **NetEye Status** function displays all settings read by the selected video camera.

To display and edit all video camera settings, see *chapter 12.4 Advanced video camera settings.*

Use this window to check settings requested by Teledata customer service.

Path

Home page,

12.3 Manual video camera addressing

Purpose   The **IP Channels** panel lets you:

- add new video cameras with a previously set address
- assign a user name and password and set primary or secondary stream on video cameras already in the network

NetEye Client For NetEye Client, the **IP Channels** panel lets you connect to:

- IP video cameras and video servers, whether or not conencted to NetEye Server (typically in a LAN)
- SteelEye (LAN and WAN)

Description   This function is useful when adding video cameras installed with a correct IP address or when setting access data and stream type.

> To find all connected video cameras *see chapter 11.2 Searching for connected video cameras and assigning IP addresses.*

Path

Home page, [icon], **IP Channels**.

| Data	Description
-	Types of IP connections to be set: **Teledata**: Teledata IP video cameras **Teledata (VideoServer 4 ch)**: 4-channel Teledata video servers **SteelEye (VideoServer 16 ch)**: (NetEye Client only) 16-channel SteelEye. NetEye Server video cameras in a LAN are directly accessible with their IP address and password. Use Remote Client in a WAN (without fixed IP *(see chapter 14 Remote Client).*
xxx.xxx.xxx.xxx	Video camera or video server IP address. The IP address must belong to the same domain as the computer where NetEye is installed.
Ch1, Ch2, Ch3, Ch4	Stream type (primary or secondary) to be used for the video camera (**Ch1**) or channel selected by the Video Server. Select a format compatible with the video camera features where the images are displayed (i.e.: to playback on 3G connections, a format with less detail is recommended,) (NetEye Client only) SteelEye video camera channels to be displayed.
UDP **TCP**	(NetEye Client only, for connections to SteelEye) **UDP**: protocol only used in a LAN. **TCP**: protocol typically used in a WAN- SteelEye only allows two different types of connections (UDP and TCP) simultaneously.
Username **Password**	To access video cameras or video servers via http (LAN or WAN).
Video camera Name	Name displayed in the tree chart.

To add video cameras with IP addresses already set:

1. Select either video camera or video server **[1]**

2. Enter the video camera or video server IP address and type of stream for the channel **[2]**

3. Enter the video camera or video server user name and password and name to be assigned **[3]**

4. Click **New**: the video camera or video server channel IP address is added to the end of the list

> To change video camera or video server settings, click on the IP address, edit settings and click **Change.**
> To delete a video camera from programming, click on the IP address, click **Delete**: "Deleted" appears in the list.
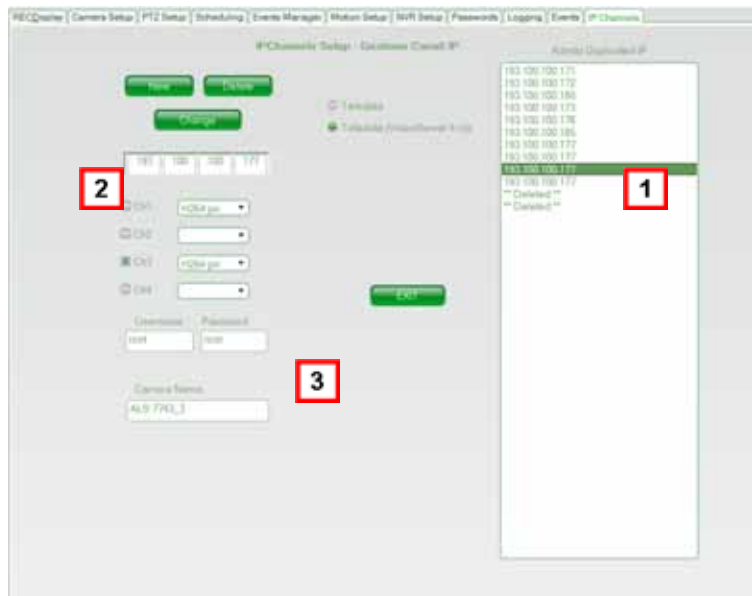
(NetEye Client) To add a connection to a   :

1. Select **[1] Steel Eye (VideoServer 16 ch)**

2. Enter the SteelEye IP address

3. Select the channels to be displayed and type of protocol **[2]**

4. Click **New**: the SteelEye IP address is added to the list as many times as there are selected channels

5. If necessary, select the single channel, edit settings and click **Change4**
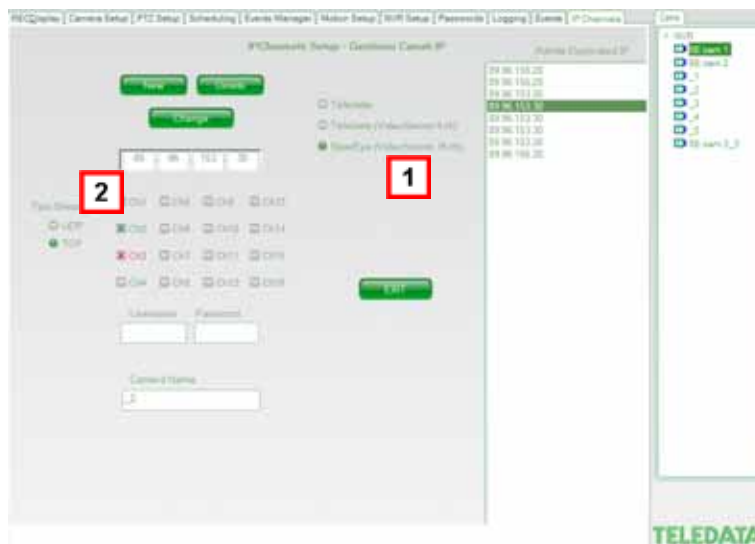
12.4 Advanced video camera settings

Purpose

The **Online video camera setup** panel lets you:

- Display all video camera settings
- set advanced settings
- update firmware

IP video cameras can be simply viewed in the network with a browser. Consider that one video camera can accept up to 10 connections.

Description

The function opens the application homepage in a browser that directly manages the video camera. Please see the video camera user manual.

Path

Homepage, double-click a video camera, , user name and password for video camera access
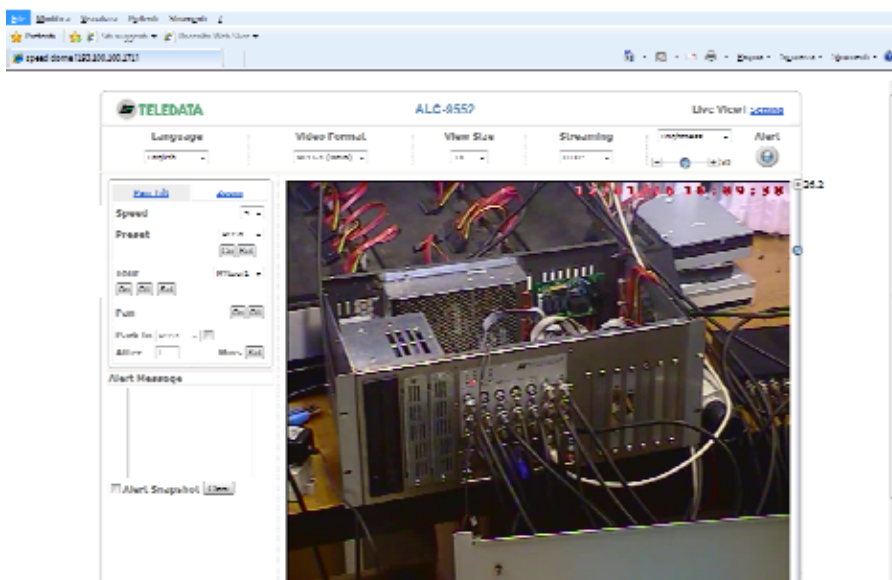
13.NetEye Client

13.1 Interface and functions

Purpose   NetEye Client lets you view images and playback recordings from video cameras connected to several NetEye Servers and several SteelEye in real-time.

Interface   The NetEye Client interface is identical to NetEye Server. Only the following panels are enabled:

Section	Enabled functions/panels	Chapters
Homepage	![icon] Change splits	*6.2 Video camera display*
	![icon] Snapshot	*8.2 Selected image snapshot*
	![icon] Recording playback	*8.4 Recording playback and snapshot display*
![icon] NVR settings	**NetEye setup**: add NetEye Server IP address memos.	*11.3 General settings*
	Password: NetEye Client protection.	*9.2 Password settings*
	Messages: NetEye Client messages.	*11.10 Display alarm/event and log messages*
	Events: NetEye Client events.	*11.11 Display daily alarm/event log*
	IP Channels: add IP video cameras, video server and SteelEye.	*12.3 Manual video camera addressing*
	Video camera Setup: video camera settings	*11.4 Fixed video camera settings*

13.2 Configuration

Preface   The following information is required:

- NetEye Server, IP video cameras and SteelEye IP addresses to be connected
- NetEye Server communications port and any playback password
- indexes of video cameras connected to each NetEye Server

Recommended procedure

Following is the suggested standard NetEye settings sequence:

Step	Description	Panel
1	Added NetEye Server IP addresses to connect to (memo only)	**NetEye setup**
2	Added SteelEye, IP video camera or video servers to connect to.	**IP Channels**
3	NetEye Server playback settings and video camera indexes.	**Video Camera Setup**

Two NetEye Client can run on the same computer to control up to 64+64 IP cameras.

14. Remote Client

Introduction   Remote Client is a simple application to playback images from video cameras linked to 10 virtual monitors set in a NetEye Server (**NetEye Setup**).

Connect to a NetEye Server via IP address.

Installation

At the end of installation, the icon appears on the desktop and the program launches.

14.1 Remote video camera playback

Purpose   The following is possible with Remote Client:

- display images acquired from IP video cameras set in NetEye Server virtual monitors in real-time
- save a snapshot

Both image quality (depending on NetEye Server quality settings), and refresh frequency can be set.

NetEye Server settings   **To set NetEye Server for connection from Remote Client:**

1. Install NetEye Server and set as normal.

2. Create up 10 virtual monitors and assign a video camera to each split.

3. Assign a public IP address to NetEye Server

4. Set Remote Client to connect to the NetEye Server IP address

To playback NetEye Server monitor images:

1. In **Host Name/IP** enter the NetEye Server IP address and set 5900 as the default port number.

2. Click **Save settings**: data is saved

3. Click on the monitor for image playback and set quality **[1]** and refresh frequency **[2]**.

4. Click ▶ to start playback

   Playback can be stopped using ■ and the displayed image saved by clicking 💾

   Quality and refresh frequency must be suited to the available band.
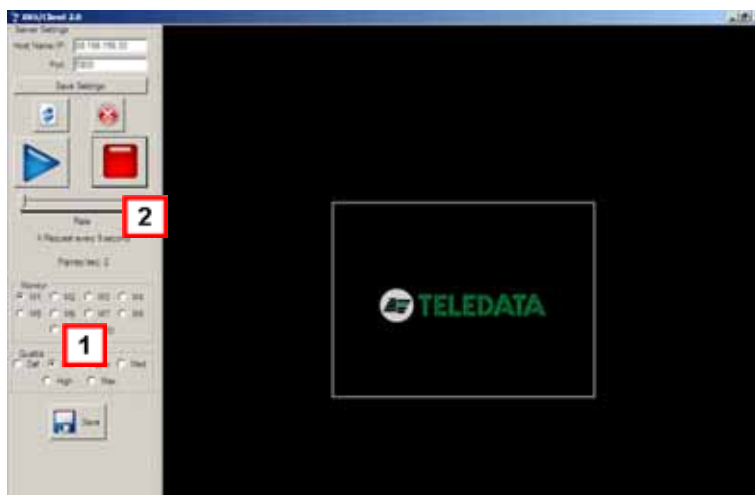
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